

THE MERCK INDEX

AN ENCYCLOPEDIA OF
CHEMICALS, DRUGS, AND BIOLOGICALS

THIRTEENTH EDITION

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*Published by
Merck Research Laboratories
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MERCK & CO., INC.
Whitehouse Station, NJ

2001

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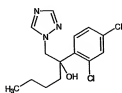
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11th Edition—1989
12th Edition—1996

Library of Congress Catalog
Card Number 89-60001
ISBN Number 0911910-13-1

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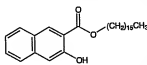
Printed in the USA

Dis. 1986, 19. Review of analytical methods: K. J. Harradine *et al.* in *Comprehensive Analytical Profiles of Important Pesticides*, I. Sherma, T. Cairns, Eds. (CRC Press, Boca Raton, 1993) pp 43-57.



White crystalline solid, mp 111°. d_{25}^{25} 1.29. Log P (octanol/water): -3.9 at 20°. Vapor pressure (20°): 2×10^{-8} kPa. Solubility (g/l): water 0.017; methanol 246; acetone 164; toluene 59; hexane 0.8. LD₅₀ orally in mallard ducks, male rats, female rats: >4000, 2189, 6071 mg/kg; dermally in rats: >2000 mg/kg. LC₅₀ (96 hour) in rainbow trout: >6.7 mg/l (Shepherd).
USE: Agricultural fungicide.

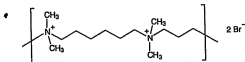
4701. Hexadecyl 3-Hydroxy-2-naphthoate. [531-84-0] 3-Hydroxy-2-naphthalenecarboxylic acid hexadecyl ester. C₂₉H₄₈O₃; mol wt 412.60. C 78.60%, H 9.77%, O 11.63%. Prep'd by the action of 3-hydroxy-2-naphthoyl chloride on cetyl alcohol: Oshima, Hayashi, *J. Soc. Chem. Ind. Japan* 44, 821 (1941).



Greenish-white, flaky crystals, mp 72-73°. Soluble in benzene, glacial acetic acid, petr ether. Sparingly sol in cold alcohol. Insol in water.

USE: As waterprooing agent for rayon.

4702. Hexadimethrine Bromide. [28728-55-4] *N,N,N',N'*-Tetramethyl-1,6-hexanediamine polymer with 1,3-dibromopropane; polymer of *N,N,N',N'*-tetramethylhexamethylenediamine and trimethylene bromide; poly(*N,N,N',N'*-tetramethyl-*N*-trimethylenehexamethylenediammonium dibromide); Polybrom. (C₂₄H₄₈B₂N₄). Toxicity study: Kimura *et al.*, *Toxicol. Appl. Pharmacol.* 1, 185 (1959).

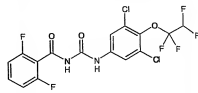


White, hygroscopic, amorphous polymer. Soluble in water up to 10%. pH of 1% saline soln 5-9. Stable in soln and when autoclaved. Polymers with mol wt of 5000-10,000 have LD₅₀ i.v. in mice: 25-40 mg/kg (Kimura).

USE: Heparin antagonist.

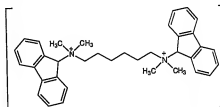
4703. Hexafluoruron. [86479-06-3] *N*-[[[3,5-Dichloro-4-(1,1,2,2-tetrafluoroethoxy)phenyl]amino]carbonyl]-2,6-difluorobenzamide; 1-[3,5-dichloro-4-(1,1,2,2-tetrafluoroethoxy)phenyl]-2,6-difluorobenzoylurea; DE-473; XRD-473; Consult yil] (2,6-difluorobenzoyl)urea; C₁₄H₆Cl₂F₆N₂O₃; mol wt 461.15. C 41.67%, H 1.75%, Cl 15.38%, F 24.72%, N 6.07%, O 10.41%. Insect growth regulator; inhibits chitin synthesis. Prep'n: R. H. Riegerink, R. J. Stragala, EP 17279; *idem*, US 4468495 (1983, 1984 both to Dow). Physical properties and activity: R. J. Stragala *et al.*, *Proc. 10th Int. Congr. Plant Prot.* 1, 417 (1983). Chromatographic determn in soil: A. Koshoh, R. Teasdale, *J. Chromatogr. A* 660, 195 (1994). Environmental distribution: D. Yon *et al.*, *Brighton Crop Prot. Conf. - Pests Dis.* 1992, 907. Field trials in food crops: K. N. Komlas, R. C. Hunter, *Brit. Crop*

Prot. Conf. - Pests Dis. 1986, 907; by subterranean termite, *N.-Y. Su, J. Econ. Entomol.* 87, 389 (1994).



White solid, mp 197-199°. Soluble in water (23°). 0.7 mg/l vapor pressure (29° K); 5.87 $\times 10^{-7}$.
USE: Insecticide.

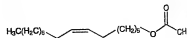
4704. Hexafluoruron Bromide. [317-52-2] *N,N'*-9,9-H-fluoro-9-yl-*N,N,N',N'*-tetramethyl-1,6-hexanediammonium dibromide; hexamethylenbis(9-fluoronyldimethylammonium bromide); hexamethylenbis(dimethyl-9-fluoronyldimethylammonium bromide); Mylaxen. C₂₄H₄₈Br₂N₄; mol wt 662.55. C 65.26%, H 6.39%, Br 24.12%, N 4.23%. Neurotransmitter blocking agent with pseudocholinesterase inhibitory activity. Prep'n: Cavallito *et al.*, *J. Am. Chem. Soc.* 76, 1862 (1954); Cavallito, Gray, US 2783237 (1957 to Irwin, Neisler). Clinical trial for prolongation of succinylcholine muscular block: L. F. Wais *et al.*, *Anesth. Analg.* 53, 503 (1970). Review: R. M. Britton, M. Figueroa, *Anesth. Analg.* 52, 100-105 (1973).



Crystals from *n*-propanol, mp 188-189°.
THERAP CAT: Succinylcholine synergist.

4705. Hexafluorobenzene. [392-56-3] Perfluorobenzene. C₆F₆; mol wt 186.05. C 38.73%, F 61.27%. Prep'n: E. J. McBee *et al.*, *Ind. Eng. Chem.* 39, 378 (1947); J. A. Goddard *et al.*, *Nature* 178, 159 (1956). Toxicology: C. F. B. Nache, *Toxicology* 39, 317 (1986). Mechanistic study of metabolic formation: I. M. C. M. Rietjens, J. Vervoort, *Chem. Res. Toxicol.* 5, 10 (1992).
mp -13 to -11°. bp₂₅ 81.0-82.0° (McBee); also reported as bp 80° (Goddard). n_D^{25} 1.3760; n_D^{20} 1.3746. d_4^{25} 1.612.
USE: Solvent; intermediate in chemical synthesis.

4706. Hexahure. [23192-42-9] (Z)-7-Hexadecen-1-ol acetate; *cis*-7-hexadecyloxy acetate; *cis*-1-octadecyloxy-7-hexadecene; C₂₄H₄₆O₂; mol wt 282.46. C 76.54%, H 12.13%, O 11.33%. Synthetic sex pheromone for pink bollworm moth, *Pectinophora gossypiella* (Saunders). Discovery and prep'n: N. Green *et al.*, *Experientia* 25, 682 (1969); N. Green, J. C. Kester, *DE* 1960155; *idem*, US 3586712 (1970, 1971 both to U.S. DE Agrie). Field trials: J. C. Kester *et al.*, *J. Econ. Entomol.* 68, 1520 (1975). Acute toxicity study: M. Berzosa *et al.*, *Toxicol. Appl. Pharmacol.* 31, 421 (1975). See also Gossypium, Pyrethrum.



Clear oily liquid, bp_{0.001} 100-104°. n_D^{25} 1.4484. Insol in water. Sol in hexane, ether, acetone, benzene. LD₅₀ in rats (mg/kg): >34600 orally; in rabbits (mg/kg): >2025 dermally (Berzosa).
USE: Insect attractant.